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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,426	12/28/2001	Sang Chul Yoon	P21845.P06	4378
7055	7590	08/17/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			CHEA, PHILIP J	
			ART UNIT	PAPER NUMBER
			2153	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,426

Applicant(s)

YOON ET AL.

Examiner

Philip J. Chea

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-11 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 3-11 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 28 December 2001 and 02 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to an Amendment filed May 22, 2006. Claims 1,3-11 are currently pending. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,3-7,9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman et al. (US 6,182,094), herein referred to as Humpleman, and further in view of Saito et al. (US 6,523,696), herein referred to as Saito, and further in view of Moyer et al. (US 2002/103898), herein referred to as Moyer.

As per claim 1, Humpleman disclose a home appliance control system, as claimed, comprising:

- an external Internet network installed outside of a building (see Humpleman column 20, lines 42-51, where outside of a building is considered outside the users home);
- an internal Internet network installed inside the building and connected to the external Internet network via networking equipment (see Humpleman column 20, lines 42-51, where internal network is considered the users home network);
- a home appliance installed in the building (see Humpleman Fig. 7);
- a computing device that sets a private Internet protocol (IP) address of the home appliance such that the home appliance is connected to the internal network based on the set private IP address (see Humpleman column 11, lines 35-47, where the computing device is considered the DHCP server generating a unique IP address to associated with the home device); and

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- a plurality of communication modules installed respectively in said home appliances, each of said communication modules corresponding to one of said home appliances and storing the private IP address of the corresponding one of said home appliances, set by said computing device (see Humpleman column 11, lines 35-47, where sending the IP address to the home device implies there is storage in the home device to retrieve the IP address), and processing data transmitted and received between said internal network and said corresponding home appliance to standards of said internal network and said corresponding home appliance (see Humpleman column 7, lines 25-35).

Although the system disclosed by Humpleman shows substantial features of the claimed invention (discussed above), it fails to disclose a computing device that sets port numbers and appliances connected to internal network based on port numbers as well as a communication module storing the port number of the corresponding home appliance.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Humpleman, as evidenced by Saito

In an analogous art, Saito disclose a home appliance control system with a computer device that sets IP addresses and port numbers (see column 24, lines 41-53) also showing appliances connected to an internal network based on IP addresses and port numbers (see column 24, lines 41-53) as well as a communication module storing the IP addresses and port numbers (see column 24, lines 54-67 and column 25, lines 1-3).

Given the teaching of Saito, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Humpleman by assigning port numbers to home appliances, such as disclosed by Saito, in order to communicate to a correct device if a single IP address is used as an access point.

Although the system disclosed by Humpleman in view of Saito shows substantial features of the claimed invention (discussed above), it fails to disclose that the computer device has a public IP address that enables access from said external Internet network.

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However, Humpleman shows that a proxy is used to connect a home network to the internet (see Fig. 14, and column 20, lines 42-47). In addition, Humpleman teaches that multiple home devices may be capable of functioning as a DHCP server, but it is preferred that the DHCP be located on a home device that is least likely to be duplicated (see column 11, lines 3-9).

In an analogous art, Moyer discloses a communication system for networked appliances where a proxy and gateway are combined into one device and connect appliances to the Internet (see Fig. 3, [116]).

It is old and well known that gateways can have built in DHCP servers. At the time of the invention a person skilled in the art would recognize the advantage of putting a proxy and DHCP server on a single device because a proxy is least likely to be duplicated in a home network, and to provide functions such as authenticating and authorizing each message, providing address mapping/resolution, etc.

As per claim 3, Humpleman in view of Saito in view of Moyer further disclose that the communication module comprises:

- a data storage unit that stores the set private IP address (see Humpleman column 11, lines 35-47, where sending the IP address to the home device implies there is storage in the home device to retrieve the IP address) and port number (see Saito column 24, lines 54-67 and column 25, lines 1-3 for storing port number) of home appliance;
- an interface storage unit for storing a user interface appropriate to a control and state observation of the home appliance having the private IP address (see Humpleman column 7, lines 4-12) and port number (as taught by Saito above) stored in the data storage unit;
- and a data processor that converts and processes data transmitted and received between the internal network and a main controller of the home appliance appropriately to standards of the internal network and main controller (see Humpleman column 7, lines 25-35).

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As per claim 4, Humpleman in view of Saito in view of Moyer further disclose that the interface stored is configured to be sent to the computing device such that a user controls the home appliance through the computing device (see Humpleman column 7, lines 45-62).

As per claim 5, Humpleman in view of Saito in view of Moyer further disclose that user interface includes a Java program executable in the computing device (see Humpleman column 7, lines 4-23).

As per claim 6, Humpleman in view of Saito in view of Moyer further disclose that the user interface includes a Java program executable in a personal computer of a user when the user gains access to the computing device through the external Internet network (see Humpleman column 20, lines 42-51, where the Java program is still present in the interface as in claim 5).

As per claim 7, Humpleman in view of Saito in view of Moyer disclose a method for controlling a home appliance, comprising :

- installing a communication module in the home appliance, the communication module that stores a set private IP address and port number (as taught by Saito above) of the home appliance and processes data transmitted and received between an internal network of a building in which the home appliance is installed and the home appliance to standards of the internal network and the home appliance (see Humpleman column 11, lines 35-47, where sending the IP address to the home device implies there is storage in the home device to retrieve the IP address);
- setting the private IP address and port number (as taught by Saito above) of the home appliance with a computing device that has a public IP address that enables access from an external Internet network, (see Humpleman column 11, lines 35-47, and discussion above combining Moyer); and
- controlling the home appliance with the set private IP address and port number (as taught by Saito above) through a user interface (see Humpleman column 14, lines 40-46).

As per claim 9, Humpleman in view of Saito in view of Moyer further disclose

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- connecting the home appliance to the internal network if the private IP address and port number (as taught by Saito above) of the home appliance is set (see Humpleman column 11, lines 13-24); and
- determining whether the home appliance has been connected to the internal network (see Humpleman column 11, lines 56-65).

As per claim 10, Humpleman in view of Saito in view of Moyer further disclose storing the user interface appropriate to the appliance control in each of the home appliance and sending the storing user interface to a user desiring the appliance control, such that the user interface is executed by the user (see Humpleman column 7, lines 4-12).

As per claim 11, Humpleman in view of Saito in view of Moyer further disclose

- determining whether a private IP address and port number (as taught by Saito above) in a home appliance inputted through the user interface corresponds to a set of private IP address and port number (as taught by Saito above) of a specific home appliance of a plurality of home appliances (see Humpleman columns 7 and 8, lines 63-67 and 1-4 and column 12, lines 12-21, where IP addresses are updated in the device list, ensuring the IP address is correct);
- transferring a user's control command inputted through the user interface to the specific home appliance when the private IP address and port number (as taught by Saito above) of the home appliance control information corresponds to the set private IP address of the home appliance (see Humpleman columns 7 and 8, lines 53-67 and 1-4); and
- controlling the specific home appliance in response to the transferred control command (see Humpleman column 5, lines 19, where appliance is considered the server and control command comes from client).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Humpleman in view of Saito in view of Moyer as applied to claim 7 above, and further in view of Abrams et al. (US 6,587,739).

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Although the system disclosed by Humpleman in view of Saito in view of Moyer shows substantial features of the claimed invention (discussed above), it fails to disclose, determining whether a user has a code valid to control the home appliance when the user desires to gain access to control the home appliance.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Humpleman in view of Saito in view of Moyer, as evidenced by Abrams et al.

In an analogous art, Abrams et al. disclose controlling home appliances from a remote location where a user password is required to gain access to certain appliances (see column 11, lines 30-47).

Given the teaching of Abrams et al., a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Humpleman in view of Saito in view of Moyer by controlling access to an appliance by using a password, such as disclosed by Abrams et al., in order to regulate the use of certain appliances (see Abrams et al. column 11, lines 39-47).

Response to Arguments

4. Applicant's arguments filed May 22, 2006 have been fully considered but they are not persuasive.

(A) Applicant contends that Saito fails to disclose or suggest that the port number assigned to a service is stored in a communication module of a corresponding home device. Applicants submit that the port numbers assignments are only known to the PC 210 and the external terminal which accesses it.

(B) Applicant contends that Saito's home network does not include a computer device having a public IP address which sets a private IP address for a home appliance.

(C) Applicant contends that Saito does not teach both a private IP address and a port number are assigned to a home device.

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In considering (A), the Examiner respectfully disagrees. The Examiner considers the computer to be the communication module. Therefore the IP address of the PC 210 in combination with the port number is considered the entire home device.

In considering (B), the Examiner believes that Humpleman (column 11, lines 35-47), successfully addresses this limitation. In Humpleman, a DHCP server sets a private IP address for a home device.

In considering (C), the Examiner respectfully disagrees. Given the interpretation that the PC 210 in combination make up the home device, it is clear from Saito (column 19, lines 6-22 and Fig. 19) that home device consists of a private IP address from PC 210 and port number.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Chea whose telephone number is 571-272-3951. The examiner can normally be reached on M-F 7:00-4:30 (1st Friday Off).

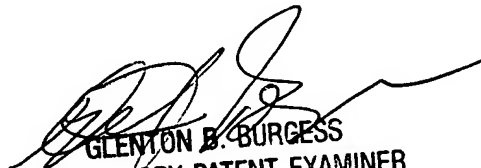
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Philip J Chea
Examiner
Art Unit 2153

PJC 8/10/06


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